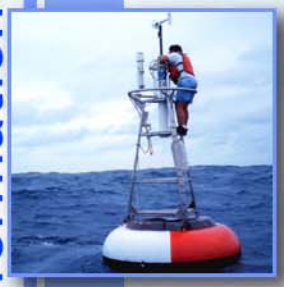
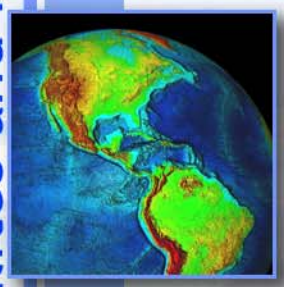
# National Polar-orbiting Operational Environmental Satellite system (NPOESS)





**The National Requirement:** The Nation requires a more cost-effective space-based, polar-orbiting environmental observing system to satisfy both national security and civil requirements of protecting U.S. lives and property, and the Nation's environmental, national, homeland and economic security.

**NOAA's Response:** The National Polar-orbiting Operational Environmental Satellite System (NPOESS) program was created by Presidential Directive in 1994 to converge the polar weather satellite systems of the Department of Defense (DoD)(Defense Meteorological Satellite Program) and the Department of Commerce (DOC)(Polar-orbiting Operational Environmental Satellite (POES)), while incorporating technological advances from the National Aeronautics and Space Administration (NASA). DOC, through NOAA, has lead operational responsibility for NPOESS, DoD through the U.S. Air Force has lead system acquisition responsibility, and NASA has responsibility for developing and inserting new technologies into the NPOESS program and providing a conduit for new instruments to move from research to operations. All three agencies work within the context of a jointly-staffed Integrated Program Office. NPOESS will provide real-time, global and regional environmental imagery, and meteorological, climatic, terrestrial, oceanic, and solar-geophysical data. NPOESS instruments will deliver more accurate atmospheric and oceanographic data to support medium to long-range weather forecasts and severe storm warnings, reducing loss of life and property, and advancing the national economy. These data are also critical for seasonal to inter-annual forecasts. The aviation community will benefit from more accurate and timely forecasts and warnings. Improved wildfire monitoring and enhanced weather warnings will benefit the agriculture industry. A better understanding of ocean winds, waves, and currents will lead to improved vessel routing for safety and fuel savings. NPOESS data will provide military leaders better situational awareness critical to combat planning and achieving air superiority, and winning war with minimum casualties, helping to maximize combat effectiveness through improved coverage and distribution of atmospheric and space environmental conditions.

The FY 2006 Request will continue the Acquisition and Operations phase of the NPOESS Shared System Performance Responsibility contract. The funds will support preparations for the launch of the NPOESS Preparatory Project - a critical risk reduction mission for NPOESS, and ensure that the first NPOESS satellite will be available for launch in FY 2010. The Request provides funds for NASA and the USGS to implement the Landsat continuity plan. NASA will buy two land imaging sensors to be incorporated on NPOESS satellites. NOAA will fund the integration the sensors onto the NPOESS platform and provide continuity of the data set. USGS will develop the ground systems to process, archive and distribute Landsat data.

**Partners and Customers:** DOC through NOAA, DoD through the Air Force, and NASA have partnered to develop NPOESS, with critical support from commercial industry.

**Financing:** The FY2006 Budget requests **$320.998 million**, DOC/NOAA's portion of the total $649.8 million required to continue development of the NPOESS. DoD / U.S. Air Force requests $323.8 million. The FY 2006 Budget requests separately $11.0 million for integration of the Landsat sensor on the NPOESS satellite.

**For additional information:** www.ipo.noaa.gov and www.nesdis.noaa.gov

NOAA Satellites and Information Service www.nesdis.noaa.gov